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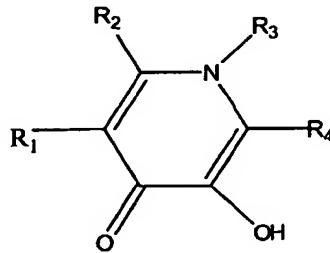
(75) Inventor/Applicant (*for US only*): POPOWICZ, Anthony [US/US]; 53 Crestwood Lane, Farmingville, NY 11738 (US).(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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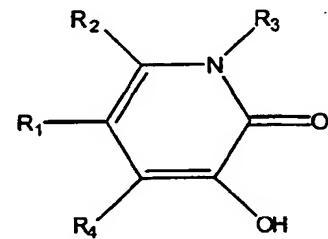
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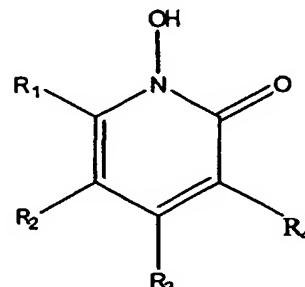
(54) Title: INHIBITOR DEVELOPMENT FOR 4-HYDROXYPHENYL PYRUVATE DIOXYGENASE, EMPLOYING TYROSINEMIA I AS A MODEL FOR HUMAN DISEASES MEDIATED BY 2-OXOACID UTILIZING DIOXYGENASES



I



II



III

(57) Abstract: The present invention is directed to a method of inhibiting 4-hydroxyphenylpyruvate dioxygenase in a living system by administering to the living system an effective amount of a compound of formulas I or II or III or derivatives thereof as follows: R¹, R², R³, and R⁴ each individually represent a hydrogen, an alkyl, alkenyl, or alkoxy group containing 1 to about 8 carbon atoms, an aryl, aralkyl, or cycloalkyl group containing about 5 to 12 carbon atoms, or a carboalkoxy or carbamyl group containing up to 8 carbon atoms, or a peptide or peptidomimetic moiety containing 10 to about 30 carbon atoms under conditions effective to inhibit 4-hydroxyphenylpyruvate dioxygenase in the living system. These compounds are also useful in carrying out a method of treating a patient and a method of regulating plant growth.

WO 2004/005321 A2